IN THE CLAIMS:

Please amend Claims 1, 19, 38, 40, 42, and 44 as shown below.

1. (Currently Amended) A surface optical device apparatus comprising:

a surface optical device arranged on a substrate, said surface optical device being capable of emitting or receiving light through a surface of said surface optical device; and

a layer formed of a ~~radiation-curable~~ photosensitive or electron-beam-curable material, in which a guide hole for inserting an end portion of a light-transmission member therein is formed at a position corresponding to said surface of said surface optical device such that said surface optical device can be optically coupled to said light-transmission member inserted in said guide hole,

wherein said guide hole is formed in said layer by performing a patterning on said layer using photolithography, and

wherein a portion of said layer is closer to said substrate than is the bottom of said guide hole ~~formed directly on a surface of said surface optical device~~.

2. (Original) The surface optical device apparatus of claim 1, wherein said curable material is a polymerizable resist.

3. (Previously Presented) The surface optical device apparatus of claim 1, wherein a thickness of said layer is in a range between 10 μm and 1000 μm.

4. (Previously Presented) The surface optical device apparatus of claim 1, wherein said layer comprises a lower layer with a hole a size of which is smaller than a size of said light-transmission member and which transmits light therethrough, and an upper layer, formed on said lower layer, with a guide hole for fixing said light-transmission member therein, and a distance between said surface of said surface optical device through which light can be emitted or received and an end face of said light-transmission member is regulated by a thickness of said lower layer.

5. (Previously Presented) The surface optical device apparatus of claim 1, wherein said guide hole is contoured corresponding to an outer shape of said light-transmission member.

6. (Withdrawn) The surface optical device apparatus of claim 1, wherein said guide hole consists of a portion contoured corresponding to an outer shape of said light-transmission member and a groove connected to said portion.

7. (Original) The surface optical device apparatus of claim 1, wherein a plurality of said surface optical devices are arrayed, and a plurality of said guide holes are arrayed corresponding to said arrayed surface optical devices.

8. (Original) The surface optical device apparatus of claim 1, wherein said surface optical device comprises a surface light-emitting device only.

layer including an active layer, a cavity layer and distributed Bragg reflector (DBR) mirror layers sandwiching said active layer.

15. (Withdrawn) The surface optical device apparatus of claim 8, wherein said surface light-emitting device comprises a light emitting diode (LED).

16. (Withdrawn) The surface optical device apparatus of claim 10, wherein said surface light-emitting device comprises a light emitting diode (LED).

17. (Original) The surface optical device apparatus of claim 1, wherein said surface optical device comprises a thinned surface optical device without a growth substrate or with a thinned growth substrate.

18. (Withdrawn) The surface optical device apparatus of claim 1, wherein said surface optical device comprises a surface optical device with a growth substrate.

19. (Currently Amended) An optical apparatus comprising:

a substrate;

a surface optical device arranged on said substrate, said surface optical device being capable of emitting or receiving light through a surface of said surface optical device;

a light-transmission member optically coupled to said surface optical device; and

a layer formed of a ~~radiation-curable~~ photosensitive or electron-beam-curable material, in a which a guide hole for inserting an end portion of said light-transmission member therein is formed at a position corresponding to said surface of said surface optical device such that said surface optical device is optically coupled to said light-transmission member inserted in said guide hole,

wherein said guide hole is formed in said layer by performing a patterning on said layer using photolithography, and

wherein a portion of said layer is closer to said substrate than is the bottom of said guide hole ~~formed directly on a surface of said surface optical device~~.

20. (Original) The optical apparatus of claim 19, further comprising an electronic device provided on said substrate in a hybrid manner, said electronic device being electrically connected to said surface optical device.

21. (Original) The optical apparatus of claim 19, wherein a plurality of said surface optical devices are arrayed, and a plurality of said guide holes are arrayed corresponding to said arrayed surface optical devices.

22. (Original) The optical apparatus of claim 19, wherein said light-transmission member comprises an optical fiber.

23. (Original) The optical apparatus of claim 22, wherein said optical fiber comprises a polymer-containing plastic optical fiber.

24. (Original) The optical apparatus of claim 22, wherein said optical fiber comprises a silica-containing optical fiber.

25. (Original) The optical apparatus of claim 22, further comprising a resin filling a space between an end face of said optical fiber and said surface optical device.

26. (Original) The optical apparatus of claim 25, wherein said resin is a curable resin.

27. (Original) The optical apparatus of claim 26, wherein said curable resin is an optical adhesive or a transparent resin.

28. (Original) The optical apparatus of claim 23, wherein said optical fiber comprises a polymer-containing plastic optical fiber with a lens-shaped end portion.

29. (Original) The optical apparatus of claim 28, wherein said lens-shaped end portion of said polymer-containing plastic optical fiber is shaped into a concave portion, and said concave portion is filled with a resin having a refractive index larger than a refractive index of said plastic optical fiber.